

DETECTION OF CHEMICAL LIGATION USING FLUORESCENCE QUENCHING LEAVING GROUPS

Abstract

Novel compounds having a fluorescence quencher as a leaving group are disclosed. Nucleic acids and other molecules containing a fluorophore and a fluorescence quencher are disclosed as an embodiment of this invention. The use of the oligonucleotides in enzyme-free oligonucleotide ligation reactions results in an increase in fluorescence when the oligonucleotide also contains a nearby fluorophore. The ligation reactions can be performed in solution, on surfaces, or in cells.